

REMARKS

The Action dated January 22, 2009 indicates that the previous response was not fully responsive. Consequently, the Applicant assumes that the last response was not entered and, therefore, has included the previous amendments to the claims in the present response, as well as the previous remarks. The following also addresses the January 22, 2009 Action.

Remarks In Response to January 22, 2009 Action

The January 22, 2009 Action indicates that a list of all claims with status identifiers must be provided. Because the present application is a re-issue application, amendments of the claims are governed 37 CFR 1.173, which does not require a full listing of claims with status identifiers. However, for reference, the Applicant has included a full listing of the claims in Appendix D. This listing includes the amendments reflected in this response (which were submitted in the response filed June 5, 2006).

The January 29, 2009 Action also indicates that the previous response does not point out the support for the amendments. The following indicates the support for the claims that have been added and that are still pending. Claims 52-70 supported at least by Figs. 1-3 and 27-31, and their associated description. Claim 88 is supported at least by Figs. 1-3 and their associated description. Claim 89-92 are supported at least by Figs. 1-3 and 11-13 and their associated description. Claim 93 is supported at least by Figs. 1 and 9 and their associated description.

Lastly, the January 22, 2009 Action indicates that the error stated in the reissue declaration is no longer being corrected. The undersigned spoke with Examiner Nguyen and Examiner Yuen to obtain further clarification regarding this issue. Examiner Yuen indicated that the reissue declaration was not specific enough because it was not clear what claim language in the original claims forms the basis for the error. The Applicant submits that the error noted in the declaration, in particular, that the original claims were "directed to an anchor and driver assembly" is sufficiently specific as to the claim language that forms the basis of the error. For example, this statement clearly implicates the claim language in claim 13 that recites an anchor and driver assembly. Specifically, this clearly implicates the "anchor and drive assembly

comprising an anchor member and . . . a drive member” recited in independent claim 13. This statement also implicates claim 1’s recitation of “an anchor [including] an element configured for positive axial interengagement with a corresponding element of a driver.”

While claim 19 (mentioned in the declaration) is no longer pending, the Applicant submits that this error is still being corrected, for example, by claim 52, which is directed to the anchor only. Further, as discussed below, a supplemental declaration is not required.

The Applicant asks that the objections and/or rejections provided in the January 22, 2009 Action be withdrawn.

Previous Remarks in Response to January 3, 2006 Action

Applicant acknowledges the January 3, 2006 Action’s request for a supplemental paper amending the reissue application as required by 37 CFR 1.173(b). Applicant has included Appendices A and B that reflect the amendments made in the response dated February 27, 2003 in a manner that complies with 37 CFR 1.173(b). Appendix C depicts the current amendments to claims 92 and 93.

The January 3, 2006 Action has rejected claims 1-19, 21-71, 73-99, and 102-110 under 35 USC 251 as being based on a defective reissue declaration.

Applicant has cancelled claims 19, 21-51, 71, 73-87, 94-99, 102-110 by the current amendment, leaving claims 1-18, 52-70, and 88-93 pending, which, except for the current amendments to claims 92 and 93, have not been amended since the filing of the reissue declaration on April 19, 2000. The current amendments to claims 92 and 93 merely correct typographical and antecedent basis errors, which are not errors under 35 USC 251, and therefore do not necessitate a new reissue declaration. See MPEP 1414.01.

Accordingly, the rejection should be withdrawn.

Applicant submits that all claims are in condition for allowance.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date:

2/23/07



Kevin E. Greene

Reg. No. 46,031

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331
40545775.doc

APPENDIX A

The following shows the amendments made to the claims in the response dated February 27, 2003 in a manner that complies with 37 CFR 1.173(b)

Claims 20, 72, and 100-101 have been cancelled without prejudice or disclaimer.

Claims 19, 21, 22, 71, 73, 74, and 77 have been amended as follows:

19. (Twice Amended) An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse, circumferentially bounded opening extending through said body for receiving the suture,

said body having a non-helically extending exterior enlargement for engaging the bone upon insertion to resist withdrawal of said anchor from the bone, wherein said enlargement comprises a circumferential ridge.

21. (Amended) The anchor of claim 19 wherein said circumferential ridge includes a distal, chamfered surface.

22. (Amended) The anchor of claim 19 wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

71. (Amended) An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse opening extending through said body for receiving the suture,

said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal

of said anchor from the bone, wherein said enlargement comprises a non-helical circumferential ridge.

73. (Amended) The anchor of claim 71 wherein said circumferential ridge includes a distal, chamfered surface.

74. (Amended) The anchor of claim 71 wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

77. (Amended) An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse opening extending through said body for receiving the suture,

said body having a plurality of non-helically arranged, exterior enlargements configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone, wherein each of said plurality of exterior enlargements comprises a circumferential ridge.

Claims 102-110 have been added as follows:

102. An anchor for insertion into a bone hole to secure a suture to bone, comprising:
a rigid body defining a generally transverse, circumferentially bounded opening
extending through said body for receiving the suture,

said body having a plurality of non-helically arranged, exterior enlargements for
engaging the bone upon insertion to resist withdrawal of said anchor from the bone, wherein
each of said plurality of exterior enlargements comprises a circumferential ridge.

103. The anchor of claim 102 wherein each circumferential ridge includes a distal, chamfered surface.

104. The anchor of claim 102 wherein each circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

105. The anchor of claim 104 wherein the proximal surface is perpendicular to the longitudinal axis of the body.

106. The anchor of claim 102 wherein said circumferential ridges have outer extents of about the same diameter.

107. The anchor of claim 102 wherein at least one circumferential ridge has an outer diameter which differs from an outer diameter of another of said circumferential ridges.

108. An anchor for insertion into a bone hole to secure a suture to bone, comprising: a rigid body having a pointed distal end and defining a generally transverse, circumferentially bounded opening extending through said body for receiving the suture, said body having a non-helically extending exterior enlargement for engaging the bone upon insertion to resist withdrawal of said anchor from the bone.

109. An anchor for insertion into a bone hole to secure a suture to bone, comprising: a rigid body having a pointed distal end and defining a generally transverse opening extending through said body for receiving the suture, said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone.

110. An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse opening extending through said body for receiving the suture, said opening having open ends,

said body having an outer surface defining a pair of suture receiving channels, each suture receiving channel being aligned with one of said open ends and extending to a proximal end of said body, and

said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone.

APPENDIX B

The following is a marked-up version showing the changes made by the amendments in Appendix A.

Claims 20, 72, and 100-101 have been cancelled without prejudice or disclaimer.

Claims 19, 21, 22, 71, 73, 74, and 77 have been amended as follows:

19. (Twice Amended) An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse, circumferentially bounded opening extending through said body for receiving the suture,

said body having a non-helically extending exterior enlargement for engaging the bone upon insertion to resist withdrawal of said anchor from the bone, wherein said enlargement comprises a circumferential ridge.

21. (Amended) The anchor of claim [20]19 wherein said circumferential ridge includes a distal, chamfered surface.

22. (Amended) The anchor of claim [20]19 wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

71. (Amended) An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse opening extending through said body for receiving the suture,

said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal

of said anchor from the bone, wherein said enlargement comprises a non-helical circumferential ridge.

73. (Amended) The anchor of claim [72]~~71~~ wherein said circumferential ridge [including]~~includes~~ a distal, chamfered surface.

74. (Amended) The anchor of claim [72]~~71~~ wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

77. (Amended) [The anchor of claim 76] An anchor for insertion into a bone hole to secure a suture to bone, comprising:

a rigid body defining a generally transverse opening extending through said body for receiving the suture,

said body having a plurality of non-helically arranged, exterior enlargements configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone, wherein each of said plurality of exterior enlargements comprises a circumferential ridge.

Claims 102-110 have been added

APPENDIX C

The following is a marked-up version showing the changes made to claims 92 and 93 by the present amendment.

Claims 92 and 93 have been amended as follows:

92. A method of securing a suture to a bone, comprising:
providing a rigid body defining a generally transverse opening extending through said body for receiving the suture, said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone,
threading suture through the opening, and
inserting the anchor within a bone hole by applying only an axial force, said [circumferential ridge] exterior enlargement engaging the bone to resist withdrawal of said anchor from the bone hole.

93. A method of attaching an anchor body to a drive tool, comprising:
attaching a first portion of a suture to said anchor body,
attaching a second portion of the suture to said drive tool such that said anchor body is secured to said drive tool at least in part by attaching the second portion of the suture to the drive tool.

APPENDIX D

The following is a list of the currently pending claims.

1. An anchor for securing a suture to bone, comprising:
an elongated body having a proximal region terminating in a proximal end, and a distal region terminating in a distal end configured for insertion into a hole in the bone;
said proximal region including an element configured for positive axial interengagement with a corresponding element of a driver for insertion of said anchor into the hole, said element of said proximal region including one of a protrusion or a recess which axially interlocks with a corresponding recess or protrusion, respectively, of the corresponding driver element;
at least one ridge, disposed on an exterior surface of said body, for engaging the bone after insertion to resist withdrawal of said anchor; and
a suture mount carried by said elongated body.
2. The anchor of claim 1 wherein said recess includes an opening in said proximal region of said anchor or in said driver.
3. The anchor of claim 1 in which said element of said anchor includes a projection extending from said elongated body for engaging a matching socket of the corresponding driver element.
4. The anchor of claim 1 in which said element of said anchor is narrower in cross-section along a first dimension than along another cross-sectional dimension.
5. The anchor of claim 1 in which said element of said anchor includes a socket defined by said elongated body which has an opening communicating with said proximal end of said body, and said socket is narrower in cross-section along a first dimension than along another cross-sectional dimension.

6. The anchor of claim 5 in which said socket also becomes smaller in width in said first dimension progressing distally to a distal base of said socket.

7. The anchor of claim 1 in which said elongated body further defines a passageway for receiving a guide wire during insertion of said anchor.

8. The anchor of claim 7 in which said suture mount includes a hole in said elongated body, and said passageway does not intersect said hole.

9. The anchor of claim 1 wherein said element of said proximal region of said anchor is configured to provide a snap fit with the corresponding element of the driver.

10. The anchor of claim 9 wherein said element of said proximal region of said anchor is further configured so that the snap fit is sufficiently strong to allow said anchor to be removed from the bone hole after insertion.

11. The anchor of claim 1 wherein said element of said proximal region of said anchor comprises a projection on said elongated body and the element of the driver includes a recess that receives said projection to provide the positive axial interengagement.

12. The anchor of claim 1 wherein said element of said proximal region of said anchor comprises a recess on said elongated body and the element of the driver includes a projection which is received in the recess to provide the positive axial interengagement.

13. An anchor and driver assembly comprising:

an anchor member including an elongated body having a proximal region terminating in a proximal end, and a distal region terminating in a distal end configured for insertion into a hole in a bone;

a driver member having a handle member and a shaft member, said shaft member having a drive element at its distal end;

said proximal region of said anchor member including an element configured for positive axial interengagement with said drive element for insertion of said anchor into the hole by said driver member, said element of said anchor member including one of a protrusion or a recess which axially interlocks with a corresponding recess or protrusion, respectively, of said drive element;

at least one ridge, disposed on an exterior surface of said body, for engaging the bone after insertion to resist withdrawal of said anchor member; and

a suture mount carried by said elongated body.

14. The assembly of claim 13 wherein said driver member has a passageway therethrough, and said anchor member has an opening therein communicable with said passageway and with said suture mount.

15. The assembly of claim 13 further comprising a suture member attached to said anchor member by said suture mount, passing through said opening, and being positioned in said passageway.

16. The anchor of claim 13 in which said anchor member and said driver member each define a passageway alignable with each other to receive a guide wire through both said passageways to assist placement during insertion of said anchor member.

17. The assembly of claim 13 wherein said driver element includes a pin arranged transversely to a longitudinal axis of said shaft member, and said element of said anchor member includes a socket in said elongated body for receiving said pin.

18. The assembly of claim 17 wherein said socket includes a slot having an open proximal end and a closed distal end, said closed distal end being substantially the same size as said pin and said slot being narrower than said pin, thereby to provide the positive axial interengagement with said pin.

19-51. Canceled

52. An anchor for insertion into a bone hole to secure a suture to bone, comprising:
a rigid body defining a generally transverse opening extending through said body for receiving the suture, said opening having open ends, said body having an outer surface defining a pair of suture receiving channels, each suture receiving channel being aligned with one of said open ends,

said body including an engaging member configured to engage the bone upon insertion to resist withdrawal of said anchor from the bone.

53. The anchor of claim 52 wherein said suture receiving channels extend through said engaging member.

54. The anchor of claim 52 wherein said suture receiving channels extend to a proximal end of said body.

55. The anchor of claim 52 wherein said engaging member comprises a circumferential ridge.

56. The anchor of claim 55 wherein said circumferential ridge is non-helically arranged.

57. The anchor of claim 55 wherein said circumferential ridge includes a distal, chamfered surface.

58. The anchor of claim 55 wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

59. The anchor of claim 58 wherein the proximal surface is perpendicular to the longitudinal axis of the body.

60. The anchor of claim 52 further including a plurality of engaging members for engaging the bone upon insertion to resist withdrawal of said anchor from the bone.

61. The anchor of claim 60 wherein each of said plurality of engaging members comprises a circumferential ridge.

62. The anchor of claim 61 wherein said plurality of circumferential ridges are non-helically arranged.

63. The anchor of claim 61 wherein each circumferential ridge includes a distal, chamfered surface.

64. The anchor of claim 61 wherein said circumferential ridge includes a proximal surface orientated transversely to a longitudinal axis of the body.

65. The anchor of claim 64 wherein the proximal surface is perpendicular to the longitudinal axis of the body.

66. The anchor of claim 61 wherein said circumferential ridges have outer extents of about the same diameter.

67. The anchor of claim 61 wherein at least one circumferential ridge has an outer diameter which differs from an outer diameter of another of said circumferential ridges.

68. The anchor of claim 52 wherein said body has a rounded distal end.

69. The anchor of claim 52 wherein said body has a pointed distal end.

70. The anchor of claim 52 wherein said body has a cylindrical exterior surface.

71-87. Canceled

88. An anchor assembly, comprising:
an anchor body defining an opening for receiving a first portion of suture, and
a drive tool for inserting said anchor body in bone, said drive tool including a mount for releasably receiving a second portion of the suture to enable said anchor body to be secured to said drive tool at least in part by attaching the second portion of the suture to the mount.

89. A method of securing a suture to a bone, comprising:
providing an anchor including a rigid body defining a generally transverse opening extending through said body for receiving the suture, said body having a non-helically extending exterior enlargement,
threading suture through the generally transverse opening, and
inserting the anchor within a bone hole such that said enlargement engages the bone to resist withdrawal of said anchor from the bone hole.

90. A method of securing a suture to a bone, comprising:
providing an anchor including a body having a cylindrical exterior surface, said body defining an opening for receiving the suture, and a non-helical circumferential ridge extending from the cylindrical exterior surface of said body,
threading suture through the opening, and
inserting the anchor within a bone hole such that said circumferential ridge engages the bone to resist withdrawal of said anchor from the bone hole.

91. A method of securing a suture to a bone, comprising:
providing an anchor including a rigid body defining a generally transverse opening extending through said body for receiving the suture, said opening having open ends, said body having an outer surface defining a pair of suture receiving channels, each suture receiving channel being aligned with one of said open ends, said body including an engaging member configured to engage the bone upon insertion to resist withdrawal of said anchor from the bone,
threading suture through the generally transverse opening,
placing a first length of suture in a first of said pair of suture receiving channels, and a second length of suture in a second of said pair of suture receiving channels, and
inserting the anchor within a bone hole such that said engaging member engages the bone to resist withdrawal of said anchor from the bone hole.

92. A method of securing a suture to a bone, comprising:

providing a rigid body defining a generally transverse opening extending through said body for receiving the suture, said body having an exterior enlargement configured to enable the anchor to be non-rotationally advanced into a bone hole and to engage the bone upon insertion to resist withdrawal of said anchor from the bone,

threading suture through the opening, and

inserting the anchor within a bone hole by applying only an axial force, said exterior enlargement engaging the bone to resist withdrawal of said anchor from the bone hole.

93. A method of attaching an anchor body to a drive tool, comprising:

attaching a first portion of a suture to said anchor body,

attaching a second portion of the suture to said drive tool such that said anchor body is secured to said drive tool at least in part by attaching the second portion of the suture to the drive tool.

94-110. Canceled